AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (currently amended) A method of qualification of an image sensor having images in the form of pixels, comprising the steps of:

determining the maximum limit of the number of bad pixels in a given area of the image that can be processed;

defining a sliding window having the format of the area determined, the sliding window configured to occupy a number of image sensor lines less than the total number of image sensor lines;

establishing a cartography of the pixels forming an image delivered by the sensor which indicates the locations of bad pixels;

~~checking~~ controlling whether a part of the cartography that may contain the window has a set of bad pixels incompatible with the maximum limit; and

qualifying or rejecting the sensor depending on the ~~control result~~ controlling step.

2. (currently amended) The method according to claim 1, wherein the ~~control~~ controlling step comprises moving the window line by line over the entire cartography and, for each position of the window, making a calculation from the number of bad pixels present in the window.

3. (currently amended) The method according to claim 1 where the processing of bad pixels is intended to be carried out in parallel, each line of pixels on output of the sensor being divided into a number of sections, the pixels of each section being assigned to a respective parallel processing path, and the set of bad pixels counted

in a window on the ~~control steps~~ controlling step comprises, for each line of the window, solely of bad pixels to be found in ~~the latter~~ a section, among the line sections, where they are most numerous.

4. (currently amended) The method according to claim 2 where the processing of bad pixels is intended to be carried out in parallel, each line of pixels on output of the sensor being divided into a number of sections, the pixels of each section being assigned to a respective parallel processing path, and the set of bad pixels counted in a window on the ~~control steps~~ controlling step comprises, for each line of the window, solely of bad pixels to be found in ~~the latter~~ a section, among the line sections, where they are most numerous.

5. (original) The method according to claim 3, wherein the set of bad pixels counted comprises the sum of the most numerous pixels in a line section on each of the lines of the window, which sum must not exceed the maximum limit.

6. (original) The method according to claim 4, wherein the set of bad pixels counted comprises the sum of the most numerous pixels in a line section on each of the lines of the window, which sum must not exceed the maximum limit.

7. (original) The method according to claim 3, wherein the number of line sections is equal to four, the bad pixels being processed in parallel on four.

8. (original) The method according to claim 4, wherein the number of line sections is equal to four, the bad pixels being processed in parallel on four.

9. (currently amended) The method according to claim 1, wherein the set of bad pixels counted on the ~~control stage~~ controlling step consists of the sum of the bad pixels in the window.

10. (currently amended) The method according to claim 2, wherein the set of bad pixels counted on the ~~control stage~~ controlling step consists of the sum of the bad pixels in the window.

11. (original) The method according to claim 1, wherein a sensor is rejected if there should be only one location of the window on its cartography for which the set of bad pixels is incompatible with the maximum limit.

12. (original) The method according to claim 1, wherein the maximum limit is calculated on the basis of the number of lines of bad pixels in a batch of bad lines comprising a given number of successive lines, each containing a number of bad pixels likely to create a maximum processing time for that line on the means of processing bad pixels or on one of the parallel processing paths of those means.

13. (original) The method according to claim 12, wherein the given number of bad lines is the limiting number of lines beyond which the time of processing the bad pixels for the entire batch of bad lines would occasion an inadmissible delay in output of the image after processing.

14. (original) The method according to claim 12, wherein the batch of bad lines comprises the last lines to be processed.

15. (original) The method according to claim 13, wherein the batch of bad lines comprises the last lines to be processed.

16. (original) The method according to claim 12, wherein the size of the given area and therefore of the window is calculated on the basis of a maximum frequency of appearance of a batch of bad lines in a hypothetical cartography, beyond which the time

of processing of the bad pixels for the set would occasion an inadmissible delay in output of the image after processing.

17. (original) The method according to claim 13, wherein the size of the given area and therefore of the window is calculated on the basis of a maximum frequency of appearance of a batch of bad lines in a hypothetical cartography, beyond which the time of processing of the bad pixels for the set would occasion an inadmissible delay in output of the image after processing.

18. (original) The method according to claim 14, wherein the size of the given area and therefore of the window is calculated on the basis of a maximum frequency of appearance of a batch of bad lines in a hypothetical cartography, beyond which the time of processing of the bad pixels for the set would occasion an inadmissible delay in output of the image after processing.

19. (original) The method according to claim 15, wherein the size of the given area and therefore of the window is calculated on the basis of a maximum frequency of appearance of a batch of bad lines in a hypothetical cartography, beyond which the time of processing of the bad pixels for the set would occasion an inadmissible delay in output of the image after processing.

20. (original) The method according to claim 16, wherein the size of the window depends on the number of bad lines in a batch of bad lines and on the number of lines separating two successive batches of bad lines in the hypothetical cartography.

21. (original) The method according to claim 12, wherein the size of the window depends on the number of bad lines in a batch of bad lines and on the number of lines separating two successive batches of bad lines in the hypothetical cartography.

22. (original) The method according to claim 13, wherein the size of the window depends on the number of bad lines in a batch of bad lines and on the number of lines separating two successive batches of bad lines in the hypothetical cartography.

23. (original) The method according to claim 14, wherein the size of the window depends on the number of bad lines in a batch of bad lines and on the number of lines separating two successive batches of bad lines in the hypothetical cartography.

24. (original) The method according to claim 15, wherein the size of the window depends on the number of bad lines in a batch of bad lines and on the number of lines separating two successive batches of bad lines in the hypothetical cartography.

25. (original) The method according to claim 20, wherein the size of the window expressed in lines of pixels, is equal at least to the number of bad lines in a batch of bad lines plus the number of lines separating two successive batches of bad lines in the hypothetical cartography.

26. (original) The method according to claim 12, wherein the size of the window expressed in lines of pixels, is equal at least to the number of bad lines in a batch of bad lines plus the number of lines separating two successive batches of bad lines in the hypothetical cartography.

27. (original) The method according to claim 13, wherein the size of the window expressed in lines of pixels, is equal at least to the number of bad lines in a batch of bad lines plus the number of lines separating two successive batches of bad lines in the hypothetical cartography.

28. (original) The method according to claim 14, wherein the size of the window expressed in lines of pixels, is equal at least to the number of bad lines in a batch of bad

lines plus the number of lines separating two successive batches of bad lines in the hypothetical cartography.

29. (original) The method according to claim 15, wherein the size of the window expressed in lines of pixels, is equal at least to the number of bad lines in a batch of bad lines plus the number of lines separating two successive batches of bad lines in the hypothetical cartography.

30. (original) The method according to claim 16, wherein the size of the window expressed in lines of pixels, is equal at least to the number of bad lines in a batch of bad lines plus the number of lines separating two successive batches of bad lines in the hypothetical cartography.

31. (currently amended) The method according to claim 1, wherein the calculation of the maximum limit of number of bad pixels in a given area of the image that can be processed may include a first phase of establishment of a real limiting value and a second stage of obtaining a limiting value used for the ~~control~~ controlling step, the ~~latter~~ limiting value used for the controlling step being obtained by reducing the real limiting value.

32. (currently amended) The method according to claim 1, wherein calculation of the size of the window includes a first phase of establishment of a size determined on the basis of a real limiting value in terms of number of lines and a second phase of obtaining a size value used for the ~~control~~ controlling step, the ~~latter~~ size value used for the controlling step being obtained by increasing the real limiting value.

33. (currently amended) The method according to claim 1, wherein the qualification is provided for a sensor delivering images in dynamic mode ~~having a fixed~~, the separation between two successive images being fixed, wherein the processing time

needed in the step of determination of the maximum limit of number of bad pixels is determined on the basis of time remaining between the end of an image on output after processing of the bad pixels, and arrival of the following image for processing of the bad pixels.

34. (original) The method according to claim 33, where the frequency of dynamic images is 30 images per second, maximum limit in number of bad pixels is determined so that the time remaining is greater than or equal to 690 microseconds.

35. (original) The method according to claim 1, wherein the qualification of sensors is intended for medical radiology.

36. (currently amended) Apparatus for qualification of an image sensor having images in the form of pixels, comprising:

means for loading a cartography of pixels forming an image delivered by the sensor, which indicates the locations of the bad pixels;

means for loading qualification calculation parameters, defining a maximum limit in number of bad pixels in a given area of the image that can be processed;

means for processing of the bad pixels;

means for providing a sliding window having the format of the given area, the sliding window configured to occupy a number of image sensor lines less than the total number of image sensor lines;

means for [[a]] calculation applying the calculation parameters on the cartography in order to determine whether a part of the cartography that may contain the window has a set of bad pixels incompatible with the maximum limit; and

means for qualifying or rejecting the sensor depending on the ~~control~~ means for calculation.

37. (original) Apparatus according to claim 36, wherein the means for calculation includes means for moving the window line by line over the entire cartography and means for making a calculation from the number of bad pixels present in the window.

38. (currently amended) Apparatus according to claim 36, wherein the processing of bad pixels is intended to be carried out in parallel, each line of pixels on output of the sensor being divided into a number of sections, the pixels of each section being assigned to a respective parallel processing path, and the set of bad pixels counted in a window by the means for calculation comprises, for each line of the window, solely of bad pixels to be found in ~~the latter~~ a section, among the line sections, where they are most numerous.

39. (currently amended) Apparatus according to claim 37, wherein the processing of bad pixels is intended to be carried out in parallel, each line of pixels on output of the sensor being divided into a number of sections, the pixels of each section being assigned to a respective parallel processing path, and the set of bad pixels counted in a window by the means for calculation comprises, for each line of the window, solely of bad pixels to be found in ~~the latter~~ a section, among the line sections, where they are most numerous.

40. (original) Apparatus according to claim 36, wherein the set of bad pixels counted consists of the sum of the most numerous pixels in a line section on each of the lines of the window, which sum must not exceed the maximum limit.

41. (original) Apparatus according to claim 39, wherein the set of bad pixels counted consists of the sum of the most numerous pixels in a line section on each of the lines of the window, which sum must not exceed the maximum limit.

42. (original) Apparatus according to claim 38, wherein the number of line sections is equal to four, the bad pixels being processed in parallel on four paths in the means for processing.

43. (original) Apparatus according to claim 40, wherein the number of line sections is equal to four, the bad pixels being processed in parallel on four paths in the means for processing.

44. (original) Apparatus according to claim 36, wherein the set of bad pixels counted comprises of the sum of the bad pixels in the window.

45. (original) Apparatus according to claim 37, wherein the set of bad pixels counted comprises of the sum of the bad pixels in the window.

46. (original) Apparatus according to claim 36, wherein a sensor is rejected if there should be at least one location of the window on its cartography for which the set of bad pixels (MP) is incompatible with the maximum limit.

47. (original) Apparatus according to claim 36, wherein the maximum limit is calculated on the basis of the number of bad pixels in a batch of bad lines comprising a given number of successive lines, each containing a number of bad pixels likely to create a maximum processing time for that line on the means for processing or on one of the parallel processing paths of the means for processing.

48. (original) Apparatus according to claim 47, wherein the given number of bad lines determined is the limiting number of lines beyond which the time of processing the bad pixels for the entire batch of bad lines would occasion an inadmissible delay in output of the image after processing.

49. (original) Apparatus according to claim 47, wherein the batch of bad lines comprises the last lines to be processed by the means for processing.

50. (original) Apparatus according to claim 48, wherein the batch of bad lines comprises the last lines to be processed by the means for processing.

51. (original) Apparatus according to claim 47, wherein the size of the given area and therefore of the window is calculated on the basis of a maximum frequency of appearance of a batch of bad lines in a hypothetical cartography, beyond which the time of processing of the bad pixels for the set would occasion an inadmissible delay in output of the image after processing.

52. (original) Apparatus according to claim 48, wherein the size of the given area and therefore of the window is calculated on the basis of a maximum frequency of appearance of a batch of bad lines in a hypothetical cartography, beyond which the time of processing of the bad pixels for the set would occasion an inadmissible delay in output of the image after processing.

53. (original) Apparatus according to claim 49, wherein the size of the given area and therefore of the window is calculated on the basis of a maximum frequency of appearance of a batch of bad lines in a hypothetical cartography, beyond which the time of processing of the bad pixels for the set would occasion an inadmissible delay in output of the image after processing.

54. (original) Apparatus according to claim 50, wherein the size of the given area and therefore of the window is calculated on the basis of a maximum frequency of appearance of a batch of bad lines in a hypothetical cartography, beyond which the time of processing of the bad pixels for the set would occasion an inadmissible delay in output of the image after processing.

55. (original) Apparatus according to claim 51, wherein the size of the window then depends on the number of bad lines in a batch of bad lines and on the number of lines separating two successive batches of bad lines in the hypothetical cartography.

56. (original) Apparatus according to claim 52, wherein the size of the window then depends on the number of bad lines in a batch of bad lines and on the number of lines separating two successive batches of bad lines in the hypothetical cartography.

57. (original) Apparatus according to claim 53, wherein the size of the window then depends on the number of bad lines in a batch of bad lines and on the number of lines separating two successive batches of bad lines in the hypothetical cartography.

58. (original) Apparatus according to claim 54, wherein the size of the window then depends on the number of bad lines in a batch of bad lines and on the number of lines separating two successive batches of bad lines in the hypothetical cartography.

59. (original) Apparatus according to claim 55, wherein the size of the window then depends on the number of bad lines in a batch of bad lines and on the number of lines separating two successive batches of bad lines in the hypothetical cartography.

60. (original) Apparatus according to claim 56, wherein the size of the window then depends on the number of bad lines in a batch of bad lines and on the number of lines separating two successive batches of bad lines in the hypothetical cartography.

61. (original) Apparatus according to claim 55, wherein the size of the window, expressed in lines of pixels, is equal to the number of bad lines of the batch of bad lines plus the number of lines separating two successive batches of bad lines in the hypothetical cartography.

62. (original) Apparatus according to claim 47, wherein the size of the window, expressed in lines of pixels, is equal to the number of bad lines of the batch of bad lines plus the number of lines separating two successive batches of bad lines in the hypothetical cartography.

63. (original) Apparatus according to claim 48, wherein the size of the window, expressed in lines of pixels, is equal to the number of bad lines of the batch of bad lines plus the number of lines separating two successive batches of bad lines in the hypothetical cartography.

64. (original) Apparatus according to claim 49, wherein the size of the window, expressed in lines of pixels, is equal to the number of bad lines of the batch of bad lines plus the number of lines separating two successive batches of bad lines in the hypothetical cartography.

65. (original) Apparatus according to claim 50, wherein the size of the window, expressed in lines of pixels, is equal to the number of bad lines of the batch of bad lines plus the number of lines separating two successive batches of bad lines in the hypothetical cartography.

66. (original) Apparatus according to claim 51, wherein the size of the window, expressed in lines of pixels, is equal to the number of bad lines of the batch of bad lines plus the number of lines separating two successive batches of bad lines in the hypothetical cartography.

67. (original) Apparatus according to claim 52, wherein the size of the window, expressed in lines of pixels, is equal to the number of bad lines of the batch of bad lines

plus the number of lines separating two successive batches of bad lines in the hypothetical cartography.

68. (currently amended) Apparatus according to claim 36, wherein the calculation of the maximum limit of number of bad pixels in a given area of the image that can be processed includes a first phase of establishment of a real limiting value and a second stage of obtaining a limiting value used for the calculation, the ~~latter~~ limiting value used for the calculation being obtained by reducing the real limiting value.

69. (currently amended) Apparatus according to claim 36, wherein calculation of the size of the window includes a first phase of establishment of a size determined on the basis of a real limiting value in terms of number of lines and a second phase of obtaining a size value used for the calculation, the ~~latter~~ size value used for the calculation being obtained by increasing the real limiting value.

70. (original) Apparatus according to claim 36, where qualification is provided for a sensor delivering images in dynamic mode having a fixed separation between two successive images wherein the processing time needed in the step of determination of the maximum limit of number of bad pixels is determined on the basis of time remaining between the end of an image on output after processing of the bad pixels and arrival of the following image for processing.

71. (original) Apparatus according to claim 70, where the frequency of dynamic images is 30 images per second, and the maximum limit in number of bad pixels is determined so that the time remaining is greater than or equal to 690 microseconds.

72. (original) Apparatus according to claim 36, wherein the qualification of sensors is intended for medical radiology.